

Application No.: 10/055,568

Docket No.: JCLA8533

AMENDMENTS

In The Claims:

Claims 1-167 (canceled)

168. (new) A chip package structure comprising:

a preformed substrate comprising semiconductor material, said preformed substrate having no circuitry;

only one preformed die joined with said preformed substrate; and

a metal layer over said only one preformed die.

169. (new) The structure in claim 168, wherein said preformed die comprising a thin-film circuit layer formed therein, said metal layer having a thickness greater than that of said thin-film circuit layer.

170. (new) The structure in claim 168, wherein said metal layer comprises a power bus.

171. (new) The structure in claim 168, wherein said metal layer comprises a ground bus.

172. (new) The structure in claim 168, wherein said metal layer comprises an interconnect connecting two portions of said only one preformed die.

173. (new) The structure in claim 168 further comprising an insulation layer between said only one preformed die and said metal layer.

174. (new) The structure in claim 173, wherein said insulation layer comprises polyimide.

175. (new) The structure in claim 173, wherein said insulation layer comprises benzocyclobutene (BCB).

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176. (new) The structure in claim 173, wherein said insulation layer comprises a porous structure.

177. (new) The structure in claim 168 further comprising an insulation layer over said metal layer.

178. (new) The structure in claim 177, wherein said insulation layer comprises polyimide.

179. (new) The structure in claim 177, wherein said insulation layer comprises benzocyclobutene (BCB).

180. (new) The structure in claim 177, wherein said insulation layer comprises a porous structure.

181. (new) The structure in claim 168 further comprising an insulation layer and an upper metal layer over said only one preformed die, said insulation layer being between said metal layer and said upper metal layer.

182. (new) The structure in claim 181, wherein said insulation layer comprises polyimide.

183. (new) The structure in claim 181, wherein said insulation layer comprises benzocyclobutene (BCB).

184. (new) The structure in claim 181, wherein said insulation layer comprises a porous structure.

185. (new) The structure in claim 168 further comprising a passive device over said preformed substrate.

186. (new) The structure of claim 185, wherein said passive device comprises a capacitor.

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187. (new) The structure of claim 185, wherein said passive device comprises an inductor.
188. (new) The structure of claim 185, wherein said passive device comprises a resistor.
189. (new) The structure of claim 185, wherein said passive device comprises a filter.
190. (new) The structure of claim 185, wherein said passive device comprises a wave guide.
191. (new) The structure of claim 185, wherein said passive device comprises a micro electronic mechanical sensor (MEMS).
192. (new) The structure in claim 168 further comprising a passive device, said only one preformed die having a top surface and a lower surface, said lower surface of said only one preformed die being joined with said preformed substrate, said top surface of said only one preformed die being at a horizontal level, wherein said passive device is over said horizontal level.
193. (new) The structure of claim 192, wherein said passive device comprises a capacitor.
194. (new) The structure of claim 192, wherein said passive device comprises an inductor.
195. (new) The structure of claim 192, wherein said passive device comprises a resistor.
196. (new) The structure of claim 192, wherein said passive device comprises a filter.
197. (new) The structure of claim 192, wherein said passive device comprises a wave guide.
198. (new) The structure of claim 192, wherein said passive device comprises a micro electronic mechanical sensor (MEMS).

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199. (new) The structure of claim 168, wherein an opening is in said preformed substrate and accommodates said only one preformed die.

200. (new) The structure of claim 199, wherein said only one preformed die has a top surface substantially coplanar with the top surface of said preformed substrate.

201. (new) The structure of claim 168, wherein said preformed substrate comprises a first layer and a second layer, said first layer being on said second layer, an opening being in said first layer and exposing said second layer, and said preformed die being in said opening.

202. (new) The structure of claim 201, wherein said first layer comprises semiconductor material.

203. (new) The structure of claim 201, wherein said first layer comprises silicon.

204. (new) The structure of claim 201, wherein said second layer comprises metal.

205. (new) The structure of claim 201, wherein said only one preformed die has a top surface substantially coplanar with the top surface of said first layer.

206. (new) The structure of claim 168 further comprising an insulation layer over said preformed substrate and around said only one preformed die.

207. (new) The structure of claim 206, wherein said insulation layer comprises polymer.

208. (new) The structure of claim 206, wherein said insulation layer comprises epoxy.

209. (new) The structure of claim 168 further comprising a bump connected to said metal layer.

210. (new) The structure of claim 209, wherein said bump comprises solder.

211. (new) The structure of claim 209, wherein said bump comprises gold.

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212. (new) The structure in claim 168, wherein said only one preformed die comprises multiple active devices, and said metal layer comprises an interconnect connecting said multiple active devices.

213. (new) The structure in claim 168, wherein said preformed substrate comprises silicon.

214. (new) The structure in claim 168, wherein said preformed substrate consists of silicon.

215. (new) The structure in claim 168, wherein said metal layer comprises copper.

216. (new) The structure in claim 168, wherein said only one preformed die has an active surface and a backside surface, said backside surface of said only one preformed die being joined with said preformed substrate, and said metal layer being over said active surface of said only one preformed die.

217. (new) The structure in claim 168, wherein said only one preformed die is between said metal layer and said preformed substrate.

218. (new) The structure in claim 168, wherein said metal layer further comprises a portion under which said only one preformed die is not positioned.